

# The Builder.

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THE proper regulation of buildings in towns is a difficult point to achieve, because the rights or supposed rights of the individual are constantly warring with the convenience and protection of the public. "People are very indignant if any thing is assumed for the public at the expense of what they deem their rights, though they are always ready to claim protection from the public against the waywardness of a neighbour who has only exercised the same freedom of action which they claim for themselves." Preventing my neighbour from doing what he likes with his own because what he desires to do may annoy me, is a vastly different thing from preventing me from doing what I please with my own. "The mercer, or other neighbouring tradesman," says Professor Hosking, in his work on this subject, and of which we now propose to give an outline, "who would readily consent to the propriety of abating the cellar-flap and the contingent dray-ropes to the beer-way of his neighbour the publican, on the same side of the street, because the obstruction they occasion to the footpath may drive customers, or other possible purchasers of their wares, to cross the street, does not hesitate to spread out sun-blinds with their stay-ropes over the footpath before his own shop-window, and that without the slightest regard to the annoyance occasioned thereby to the general public. Both mercer and publican readily concur, nevertheless, in opinion, and they do not fail to urge it whenever occasion offers, that hucksters or traffickers of a more humble grade should be prevented by law from depositing their goods and vending their wares in the streets, to the obstruction of the public way, and to the injury of the settled trader!"

We have two things to do, then, to bring about the desired end: 1, to frame such laws as are necessary; and, 2, to make the necessity so evident as to prevent objections, and obtain ready acquiescence for the rules. "Regulation," says our author, "whether it be of buildings or of any other matters at the disposal of individuals, can only be rendered effectual by the intervention of the Legislature; and as regulation, when applied by statute, involves both restraint and compulsion, the purposes for which rules may be imposed, and the circumstances under which regulation is required, ought to be such as to command general acquiescence in the necessity and propriety of the imposition."

The corollary we loudly echo, and co-annex to the especial and continued attention of those who are to frame the amended Building Act.

The main object of Mr. Hosking's book is to show the propriety of certain rules for the general good, with the view of obtaining general assent to them, and the wisdom of enforcing

them, although at times repugnant to individual interests. This object, we are bound to say, the professor has achieved very successfully, although, if carried out to their full extent, the writer's arguments would justify a greater amount of interference than we should be disposed to advocate, or even to permit unquestioned.

The object to be gained must be sufficiently important to the public to justify the annoyance and taxation of the individual; and, in all cases, the protection of the many at the cost of the one requires for its enforcement the most judicious hands. In many, many cases the interests are identical, and the increased first-expenditure required would prove as much a saving of money and anxiety to the builder as of risk and injury to the public. It takes some time to make this fully and generally understood: any such clear exposition of it, as the book before us affords, in various respects, is most valuable.

"The purchaser must necessarily pay more for a well-built and well-drained, than for an ill-built and undrained house, but, buying the latter, he soon finds to his cost that he has bought too cheaply:—the walls bulge, the floors gape and crack; the lead on the flats and gutters, being without drips, after puckering in summer, cracks in winter, and as the snow thaws the ceilings fall; whilst the cesspool overflows or returns its filth to the house by the drains which led it thither:—he suffers in health and in purse, and thus the public by its members suffers."

The necessity of establishing rules for preventing the spread of fires in towns is so generally admitted, that regulations to that effect are sure to receive assent. But, as our author points out, the root of the evil to be checked,—the cause of the danger to be avoided,—is the inflammable nature of the buildings erected, and yet interference to compel a better mode of construction than that now followed would scarcely be tolerated at present. A feeling is entertained by a large number of even the enlightened portion of the community, that so long as any injury resulting from their mode of proceeding would fall apparently only on themselves, and not on the public, they should be permitted to take their own course. Every house, however, or nearly so, contains a public, and it surely is a question to be seriously entertained, whether the head of an establishment should be permitted to expose his family and dependents, through ignorance, prejudice, or avarice, to risk and, in many cases, to certain injury (however slowly and imperceptibly it may be produced, as by bad drainage and want of pure air and light, without interference in their behalf; especially as so much evil may be remedied by easy and inexpensive arrangements. Indeed, who can say that a wider public will not eventually suffer, though the immediate injury fall only on the individual. A family deprived of their natural protector may become chargeable on the public; the loss of an active bread-gaining member of society is itself an injury to the community; so that in truth, those who rest on the above argument could scarcely object to sound rules enforcing good structural and economical arrangement, as well inside as outside the dwelling.

Petty and vexatious interference is, of course, to be deprecated and strenuously opposed. The payment of ten and sixpence to a district surveyor before you can let a scraper into the front wall, and such like abominations, are not embraced by this line of reasoning.

The means of cheaply rendering buildings fire-proof is considered at some length by

Mr. Hosking, and the buildings in Paris are made to afford some useful hints. Nothing can be worse in respect of facilitating the progress of fire than the hollow timber partitions, commonly used in all stories above the basement, by means of which and our inflammable staircases it is, that fire extends itself so rapidly throughout ordinary dwelling-houses:—"the substitution of a brick wall for the cross timber partition, would, in most cases, at the same time justify the abatement of a half-brick of the thickness otherwise necessary to party-walls, and give an indestructible internal support to the floors, whereby also one of the means by which fire travels with such fearful rapidity through a house would be removed. It is true that there must be openings, as doorways and fittings in them for doors, in such internal partition wall; but the wall could not carry fire up from floor to floor through its own heart, as the hollow wood-lathed quartering partition carries it."

"Any step, indeed, from the hollow quartering partition towards a solid wall is a step towards security. A brick wall is, perhaps, the best internal partition for all the purposes of strength and safety from fire; and in small houses, which will not afford the expense of 9-inch walls, half-brick walls with 9-inch jambs at the doors, and short 9-inch piers on alternate sides of the partition, at intervals of three or four feet in length, will give sufficient strength; but even quartering partitions, if based upon brick walls, may be rendered nearly proof against fire by brick-nogging them, especially if care be taken to fill in with brickwork between the joists over the head of one partition, and under the sill of another, as well as between the timbers of the partitions. Filling in between the joists, and up as high as the skirtings go, will do something, indeed, towards diminishing the dangerous tendency of even lathed and plastered timber partitions; whilst the adoption of the plan now commonly practised in Paris, in forming not only internal partitions, but the rearward external inclosures of buildings, would secure to the structure the structural efficiency of timber in carrying weight, and give the solid and incombustible character of a brick or stone wall to a partition or enclosure which is structurally of timber."

The plan referred to, to frame and brace with timber quarterings much in the manner practised in England, except that the timber used in Paris is commonly oak, and is very generally seasoned before it is applied in building in the manner referred to; and that, as before remarked, the carpenter's work, or carpentering, of the French is not so good as that of the English. The framed structure being complete, strong oak batten-laths, from two to three inches wide, are nailed up to the quarterings horizontally, at four, six, or even eight inches apart, according to the character of the work, throughout the whole height of the enclosure or partition; and the spaces between the quarterings, and behind the laths, are loosely built up with rough stone rubble, which the laths, recurring often enough for that purpose, hold up, or prevent from falling out until the next process has been effected. This is, to apply a strong mortar, which in Paris is mainly composed of what we know under the name of plaster of Paris, but of excellent quality, laid on from or upon both sides at the same time, and pressed through from the opposite sides so that the mortar meets and incorporates, embedding the stone rubble by filling up every interstice, and with so much body on the surfaces as to cover up and embed also the timber and the laths:—in such manner, indeed, as to render the concretion of stone and plaster, when thoroughly set, an independent body, and giving strength to, rather than receiving support from, the timber."

In the construction of staircases in Paris a similar process is adopted with excellent results. The same strong batten-laths are applied to the soffits, or under-surfaces of stairs, and the spandrels, or irregular triangular voids,

"A Guide to the proper Regulation of Building in Towns, as a Means of promoting and securing the Health, Comfort, and Safety of the Inhabitants. By William Hosking, Architect, and C.E., one of the official Referees of Metropolitan Buildings, and Professor of the Principles and Practice of Architecture and of Engineering Construction, at King's College, London. London: John Murray, Albemarle-street."